10/509055

DT09 Rec'd PCT/PTO 24 SEP 2004

SEQUENCE LISTING

<110> TAKARA BIO INC.

<120> Process for the preparation of lymphocyte having cytotoxic activity

<130> 03-021-PCT

<150> JP 2002-84414

<151> 2002-03-25

<160> 24

<210> 1

<211> 87

<212> PRT

<213> Artificial Sequence

<220>

<223> partial region of fibronectin named III-8

<400> 1

Pro Thr Asp Leu Arg Phe Thr Asn Ile Gly Pro Asp Thr Met Arg

1 5 10 15

Val Thr Trp Ala Pro Pro Pro Ser Ile Asp Leu Thr Asn Phe Leu

20 25 30 Val Arg Tyr Ser Pro Val Lys. Asn Glu Glu Asp Val Ala Glu Leu 35 40 Ser Ile Ser Pro Ser Asp Asn Ala Val Val Leu Thr Asn Leu Leu 50 55 60 Pro Gly Thr Glu Tyr Val Val Ser Val Ser Ser Val Tyr Glu Gln 65 70 75 His Glu Ser Thr Pro Leu Arg Gly Arg Gln Lys Thr 80 85

<210> 2

<211> 90

<212> PRT

<213> Artificial Sequence

<220>

<223> partial region of fibronectin named III-9

<400> 2

Gly Leu Asp Ser Pro Thr Gly Ile Asp Phe Ser Asp Ile Thr Ala

1 5 10 15

Asn Ser Phe Thr Val His Trp Ile Ala Pro Arg Ala Thr Ile Thr
20 25 30

Gly Tyr Arg Ile Arg His His Pro Glu His Phe Ser Gly Arg Pro
35 40 45

Arg Glu Asp Arg Val Pro His Ser Arg Asn Ser Ile Thr Leu Thr

Asn Leu Thr Pro Gly Thr Glu Tyr Val Val Ser IIe Val Ala Leu

65 70 75

Asn Gly Arg Glu Glu Ser Pro Leu Leu IIe Gly Gln Gln Ser Thr

80 85 90

<210> 3

<211> 94

<212> PRT

<213> Artificial Sequence

<220>

<223> partial region of fibronectin named III-10

<400> 3

Val Ser Asp Val Pro Arg Asp Leu Glu Val Val Ala Ala Thr Pro 1 5 10 15 Thr Ser Leu Leu Ile Ser Trp Asp Ala Pro Ala Val Thr Val Arg 20 25 30 Tyr Tyr Arg Ile Thr Tyr Gly Glu Thr Gly Gly Asn Ser Pro Val 35 40 45 Gln Glu Phe Thr Val Pro Gly Ser Lys Ser Thr Ala Thr Ile Ser 50 55 60 Gly Leu Lys Pro Gly Val Asp Tyr Thr Ile Thr Val Tyr Ala Val 65 70

Thr Gly Arg Gly Asp Ser Pro Ala Ser Ser Lys Pro Ile Ser Ile

Asn Tyr Arg Thr

<210> 4

<211> 92

<212> PRT

<213> Artificial Sequence

<220>

<223> partial region of fibronectin named III-12

<400>. 4

Ala Ile Pro Ala Pro Thr Asp Leu Lys Phe Thr Gln Val Thr Pro

1 5 . 10 15

Thr Ser Leu Ser Ala Gln Trp Thr Pro Pro Asn Val Gln Leu Thr

20 25 30

Gly Tyr Arg Val Arg Val Thr Pro Lys Glu Lys Thr Gly Pro Met

35 40 45

Lys Glu Ile Asn Leu Ala Pro Asp Ser Ser Ser Val Val Val Ser

50 55 60

Gly Leu Met Val Ala Thr Lys Tyr Glu Val Ser Val Tyr Ala Leu

65 70 75

Lys Asp Thr Leu Thr Ser Arg Pro Ala Gln Gly Val Val Thr Thr

80 85 90

Leu Glu

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<223> partial region of fibronectin named III-13

<400> 5

Asn Val Ser Pro Pro Arg Arg Ala Arg Val Thr Asp Ala Thr Glu

1 5 10 15

Thr Thr Ile Thr Ile Ser Trp Arg Thr Lys Thr Glu Thr Ile Thr

30 35 40

Gly Phe Gln Val Asp Ala Val Pro Ala Asn Gly Gln Thr Pro Ile

45 50 55

Gln Arg Thr Ile Lys Pro Asp Val Arg Ser Tyr Thr Ile Thr Gly

60 65 70

Leu Gln Pro Gly Thr Asp Tyr Lys Ile Tyr Leu Tyr Thr Leu Asn

75 80 85

Asp Asn Ala Arg Ser Ser Pro Val Val Ile Asp Ala Ser Thr

90 95

<210> 6

<211> 90

<212> PRT

<213> Artificial Sequence

<220>

<223> partial region of fibronectin named III-14

<400> 6

Ala Ile Asp Ala Pro Ser Asn Leu Arg Phe Leu Ala Thr Thr Pro 5 1 10 15 Asn Ser Leu Leu Val Ser Trp Gln Pro Pro Arg Ala Arg Ile Thr 20 25 30 Gly Tyr Ile Ile Lys Tyr Glu Lys Pro Gly Ser Pro Pro Arg Glu 35 40 45 Val Val Pro Arg Pro Arg Pro Gly Val Thr Glu Ala Thr Ile Thr 50 55 Gly Leu Glu Pro Gly Thr Glu Tyr Thr Ile Tyr Val Ile Ala Leu 65 70 75 Lys Asn Asn Gln Lys Ser Glu Pro Leu Ile Gly Arg Lys Lys Thr

<210> 7

<211> 25

<212> PRT

<213> Artificial Sequence

80

<220>

<223> partial region of fibronectin named CS-1

85

<400> 7

Asp Glu Leu Pro Gln Leu Val Thr Leu Pro His Pro Asn Leu His

1 5 10 15

Gly Pro Glu Ile Leu Asp Val Pro Ser Thr

25

<210> 8

<211> 274

<212> PRT

<213> Human

<220>

<223> fibronectin fragment named C-274

20

<400> 8

Pro Thr Asp Leu Arg Phe Thr Asn Ile Gly Pro Asp Thr Met Arg 1 10 15 Val Thr Trp Ala Pro Pro Pro Ser Ile Asp Leu Thr Asn Phe Leu 20 25 30 Val Arg Tyr Ser Pro Val Lys Asn Glu Glu Asp Val Ala Glu Leu 35 40 45 Ser Ile Ser Pro Ser Asp Asn Ala Val Val Leu Thr Asn Leu Leu 50 55 60 Pro Gly Thr Glu Tyr Val Val Ser Val Ser Ser Val Tyr Glu Gln

				65	•				70					75
His	Glu	Ser	Ţhr	Pro	Leu	Arg	Gly	Arg	Gln	Lys	Thr	Gly	Leu	Asp
				80					85					90
Ser	Pro	Thr	Gly	Ile	Asp	Phe	Ser	Asp	Ile	Thr	Ala	Asn	Ser	Phe
				95					100					105
Thr	Val	His	Trp	Ile	Ala	Pro	Arg	Ala	Thr	Ile	Thr	Gly	Tyr	Arg
				110					115					120
Ile	Arg	His	His	Pro	Glu	His	Phe	Ser	Gly	Arg	Pro	Arg	Glu	Asp
				125					130					135
Arg	Val	Pro	His	Ser	Arg	Asn	Ser	Ile	Thr	Leu	Thr	Asn	Leu	Thr
				140					145					150
Pro	Gly	Thr	Glu	Tyr	Val	Val	Ser	Ile	Val	Ala	Leu	Asn	Gly	Arg
				155					160					165
Glu	Glu	Ser	Pro	Leu	Leu	Ile	Gly	Gln	Gln	Ser	Thr	Val	Ser	Asp
				170					175					180
Val	Pro	Arg	Asp		Glu	Val	Val	Ala	Ala	Thr	Pro	Thr		•
				185					190					195
Leu	Ile	Ser	Trp		Ala	Pro	Ala	Val		Val	Arg	Tyr	Tyr	
				200					205					210
He	Thr	Tyr	Gly		Thr	Gly	Gly	Asn		Pro	Val	Gln	Glu	
m.t		~		215		•			220				_	225
Thr	Val	Pro	Gly		Lys	Ser	Thr	Ala		lle	Ser	Gly	Leu	
D	01	¥7 = 1	A	230	mt	71-	m1	37 - 1	235		** 1	m:	01	240
110	GIŸ	vai	Asp		·	116	ınr	val		Ala	vai	ınr	Gly	
C1	A = =	C	Dro	245	C	C	T	D	250	C	T 1 -	A	т	255
σIλ	ASP	261	Pro	Ala	261.	261	ГÀ2	rro	116	ser	11e	Asn	IYI	Arg

Thr Glu Ile Asp

<210> 9

<211> 271

<212> PRT

<213> Human

<220>

<223> fibronectin fragment named H-271

<400> 9

Ala Ile Pro Ala Pro Thr Asp Leu Lys Phe Thr Gln Val Thr Pro

1 5 10 15

Thr Ser Leu Ser Ala Gln Trp Thr Pro Pro Asn Val Gln Leu Thr

20 25 30

Gly Tyr Arg Val Arg Val Thr Pro Lys Glu Lys Thr Gly Pro Met

35 40 45

Lys Glu Ile Asn Leu Ala Pro Asp Ser Ser Ser Val Val Val Ser

50 55 60

Gly Leu Met Val Ala Thr Lys Tyr Glu Val Ser Val Tyr Ala Leu

65 70 75

Lys Asp Thr Leu Thr Ser Arg Pro Ala Gln Gly Val Val Thr Thr

80 85 90

Leu Glu Asn Val Ser Pro Pro Arg Arg Ala Arg Val Thr Asp Ala

				95					100		•			105
Thr	Glu	Thr	Thr	Ile	Thr	Ile	Ser	Trp	Arg	Thr	Lys	Thr	Glu	Thr
				1,10					115					120
Ile	Thr	Gly	Phe	Gln	Val	Asp	Ala	Val	Pro	Ala	Asn	Gly	Gln	Thr
				125					130					135
Pro	Ile	Gln	Arg	Thr	Ile	Lys	Pro	Asp	Val	Arg	Ser	Tyr	Thr	Ile
				140					145					150
Thr	Gly	Leu	Gln	Pro	Gly	Thr	Asp	Tyr	Lys	Ile	Tyr	Leu	Tyr	Thr
				155					160					165
Leu	Asn	Asp	Asn	Ala	Arg	Ser	Ser	Pro	Val	Val	Ile	Asp	Ala	Ser
				170					175					180
Thr	Ala	Ile	Asp	Ala	Pro	Ser	Asn	Leu	Arg	Phe	Leu	Ala	Thr	Thr
				185					190					195
Pro	Asn	Ser	Leu	Leu	Val	Ser	Trp	Gln	Pro	Pro	Arg	Ala	Arg	Ile
				200					205					210
Thr	Gly	Tyr	Ile	Ile	Lys	Tyr	Glu	Lys	Pro	Gly	Ser	Pro	Pro	
				215					220					225
Glu	Val	Val	Pro		Pro	Arg	Pro	Gly		Thr	Glu	Ala	Thr	
				230					235					240
Thr	Gly	Leu	Glu		G l _. y	Thr	Glu	Tyr		Ile	Tyr	Val.	Ile	
_	_			245	_	_		_	250		·			255
Leu	Lys	Asn	Asn		Lys	Ser	Glu	Pro		Ile	Gly	Arg	Lys	
				260					265					270

Thr

<210> 10 <211> 296 <212> PRT <213> Artificial Sequence <220> <223> fibronectin fragment named H-296 <400> 10 Ala Ile Pro Ala Pro Thr Asp Leu Lys Phe Thr Gln Val Thr Pro 1 5 10 15 Thr Ser Leu Ser Ala Gln Trp Thr Pro Pro Asn Val Gln Leu Thr 20 25 Gly Tyr Arg Val Arg Val Thr Pro Lys Glu Lys Thr Gly Pro Met 35 40 Lys Glu Ile Asn Leu Ala Pro Asp Ser Ser Ser Val Val Val Ser 50 55 60 Gly Leu Met Val Ala Thr Lys Tyr Glu Val Ser Val Tyr Ala Leu 65 70 75 Lys Asp Thr Leu Thr Ser Arg Pro Ala Gln Gly Val Val Thr Thr 80 85 90 Leu Glu Asn Val Ser Pro Pro Arg Arg Ala Arg Val Thr Asp Ala 95 100 105

Thr Glu Thr Thr Ile Thr Ile Ser Trp Arg Thr Lys Thr Glu Thr

lle Thr Gly Phe Gln Val Asp Ala Val Pro Ala Asn Gly Gln Thr

110

115

			•	125					130					135
Pro	Ile	Gln	Arg	Thr	Ile	Lys	Pro	Asp	Val	Arg	Ser	Tyr	Thr	Ile
				140					145					150
Thr	Gly	Leu	Gln	Pro	Gly	Thr	Asp	Tyr	Lys	Ile	Tyr	Leu	Tyr	Thr
				155					160					165
Leu	Asn	Asp	Asn	Ala	Arg	Ser	Ser	Pro	Val	Val	Ile	Asp	Ala	Ser
				170					175					180
Thr	Ala	Ile	Asp	Ala	Pro	Ser	Asn	Leu	Arg	Phe	Leu	Ala	Thr	Thr
				185					190					195
Pro	Asn	Ser	Leu	Leu	Val	Ser	Trp	Gln	Pro	Pro	Arg	Ala	Arg	Ile
				200					205					210
Thr	Gly	Tyr	Ile	Ile	Lys	Tyr	Glu	Lys	Pro	Gly	Ser	Pro	Pro	Arg
				215					220					225
Glu	Val	Val	Pro	Arg	Pro	Arg	Pro	Gly	Val	Thr	Glu	Ala	Thr	Ile
	٠			230				٠	235					240
Thr	Gly	Leu	Glu	Pro	Gly	Thr	Glu	Tyr	Thr	Ile	Tyr	Val	Ile	Ala
				245	•				250					255
Leu	Lys	Asn	Asn	Gln	Lys	Ser	Glu	Pro	Leu	Ile	Gly	Arg	Lys	Lys
				260					265					270
Thr	Asp	Glu	Leu	Pro	Gln	Ļeu	Val	Thr	Leu	Pro	His	Pro	Asn	Leu
				275					280					285
His	Gly	Pro	Glu	Ile	Leu	Asp	Val	Pro	Ser	Thr				•
				290					295					

<211> 549
<212> PRT
<213> Artificial Sequence

<220>

<223> fibronectin fragment named CH-271

<400> 11

Pro Thr Asp Leu Arg Phe Thr Asn Ile Gly Pro Asp Thr Met Arg Val Thr Trp Ala Pro Pro Pro Ser Ile Asp Leu Thr Asn Phe Leu Val Arg Tyr Ser Pro Val Lys Asn Glu Glu Asp Val Ala Glu Leu Ser Ile Ser Pro Ser Asp Asn Ala Val Val Leu Thr Asn Leu Leu Pro Gly Thr Glu Tyr Val Val Ser Val Ser Ser Val Tyr Glu Gln His Glu Ser Thr Pro Leu Arg Gly Arg Gln Lys Thr Gly Leu Asp Ser Pro Thr Gly Ile Asp Phe Ser Asp Ile Thr Ala Asn Ser Phe Thr Val His Trp Ile Ala Pro Arg Ala Thr Ile Thr Gly Tyr Arg Ile Arg His His Pro Glu His Phe Ser Gly Arg Pro Arg Glu Asp

Arg	Val	Pro	His	Ser	Arg	Asn	Ser	Ile	Thr	Leu	Thr	Asn	Leu	Thr
				140					145					150
Pro	Gly	Thr	Glu	Tyr	Val	Val	Ser	Ile	Val	Ala	Leu	Asn	Gly	Arg
				155					160					165
Glu	Glu	Ser	Pro	Leu	Leu	Ile	Gly	Gln	Gln	Ser	Thr	Val	Ser	Asp
				170					175					180
Val	Pro	Arg	Asp	Leu	Glu	Val	Val	Ala	Ala	Thr	Pro	Thr	Ser	Leu
				185					190					195
Leu	Ile	Ser	Trp	Asp	Ala	Pro	Ala	Val	Thr	Val	Arg	Tyr	Tyr	Arg
				200				•	205					210
Ile	Thr	Tyr	Gly	Glu	Thr	Gly	Gly	Asn	Ser	Pro	Val	Gln	Glu	Phe
				215					220					225
Thr	Val	Pro	Gly	Ser	Lys	Ser	Thr	Ala	Thr	Ile	Ser	Gly	Leu	Lys
			•	230		•			235					240
Pro	Gly	Val	Asp	Tyr	Thr	Ile	Thr	Val	Tyr	Ala	Val	Thr	Gly	Arg
				245					250					255
Gly	Asp	Ser	Pro	Ala	Ser	Ser	Lys	Pro	Ile	Ser	Ile	Asn	Tyr	Arg
				260					265					270
Thr	Glu	Ile	Asp		Pro	Ser	Met	Ala		Pro	Ala	Pro	Thr	
				275			_		280					285
Leu	Lys	Phe	Thr		Val	Thr	Pro	Thr		Leu	Ser	Ala	Gln	
mı.	_	_		290	0.1		m.,	a .	295					300
Thr	Pro	Pro	Asn'	•	GIn	Leu	Thr	Gly		Arg	Val	Arg	Val	
n	T	C1	T	305	C1	Dese		T	310	71.	4	T .	4.1	315
LL0	Lys	Glu	Lys		G I.y	PT0	мет	Lys		He	Asn	Leu	Ala	
				320					325					330

Asp	Ser	Ser	Ser	Val	Val	Val	Ser	Gly	Leu	Met	Val	Ala	Thr	Lys
				335				•	340					345
Tyr	Glu	Val	Ser	Val	Tyr	Ala	Leu	Lys	Asp	Thr	Leu	Thr	Ser	Arg
				350					355					360
Pro	Ala	Gln	Gly	Val	Val	Thr	Thr	Leu	Glu	Asn	Val	Ser	Pro	Pro
				365					370					375
Arg	Arg	Ala	Arg	Val	Thr	Asp	Ala	Thr	Glu	Thr	Thr	Ile	Thr	Ile
				380					385					390
Ser	Trp	Arg	Thr	Lys	Thr	Glu	Thr	Ile	Thr	Gly	Phe	Gln	Val	Asp
				395					400					405
Ala	Val	Pro	Ala	Asn	Gly	Gln	Thr	Pro	Ile	Gln	Arg	Thr	Ile	Lys
				410					415					420
Pro	Asp	Val	Arg	Ser	Tyr	Thr	Ile	Thr	Gly	Leu	Gln	Pro	Gly	Thr
				425					430					435
Asp	Tyr	Lys	Ile	Tyr	Leu	Tyr	Thr	Leu	Asn	Asp	Asn	Ala	Arg	Ser
				440					445					450
Ser	Pro	Val	Val		Asp	Ala	Ser	Thr		Ile	Asp	Ala	Pro	
				455					460					465
Asn	Leu	Arg	Phe		Ala	Thr	Thr	Pro		Ser	Leu	Leu	Val	
m	0.1	D	D .	470			71.	mı.	475	m				480
Trp	Gin	Pro	Pro		Ala	Arg	11e	Inr		Tyr	He	He	Lys	
C1	Y	n	C1	485	D	D	A	C1	490	W - 1	D s	A	D	495
GIU	Lys	Pro	Gly		Pro	Pro	Arg	GIU		vai	Pro	Arg	Pro	
Dro	610	Val	Thr	500	ΔΙο	Th ⊷	110	Th -	505	Lon	C1 11	Dro	C1**	510
110	GIY	101	1111	515		1111	116	1111	520	ren	GIU	110	GIY	525
				UIU					0.41					11 / 1

Glu Tyr Thr Ile Tyr Val Ile Ala Leu Lys Asn Asn Gln Lys Ser
530 535 540
Glu Pro Leu Ile Gly Arg Lys Lys Thr
545

<210> 12

<211> 574

<212> PRT

<213> Artificial Sequence

<220>

<223> fibronectin fragment named CH-296

<400> 12

Pro Thr Asp Leu Arg Phe Thr Asn Ile Gly Pro Asp Thr Met Arg 1 5 10 15 Val Thr Trp Ala Pro Pro Pro Ser Ile Asp Leu Thr Asn Phe Leu 20 25 30 Val Arg Tyr Ser Pro Val Lys Asn Glu Glu Asp Val Ala Glu Leu 35 40 45 Ser Ile Ser Pro Ser Asp Asn Ala Val Val Leu Thr Asn Leu Leu 50 55 60 Pro Gly Thr Glu Tyr Val Val Ser Val Ser Ser Val Tyr Glu Gln 65 70 75 His Glu Ser Thr Pro Leu Arg Gly Arg Gln Lys Thr Gly Leu Asp

				80					85					90
Ser	Pro	Thr	Gly	Ile	Asp	Phe	Ser	Asp	Ile	Thr	Ala	Asn	Ser	Phe
				95					100					105
Thr	Val	His	Trp	Ile	Ala	Pro	Arg	Ala	Thr	Ile	Thr	Gly	Tyr	Arg
				110					115					120
Ile	Arg	His	His	Pro	Glu	His	Phe	Ser	Gly	Arg	Pro	Arg	Glu	Asp
				125					130					135
Arg	Val	Pro	His	Ser	Arg	Asn	Ser	Ile	Thr	Leu	Thr	Asn	Leu	Thr
				140					145					150
Pro	Gly	Thr	Glu	Tyr	Val	Val	Ser	Ile	Val	Ala	Leu	Asn	Gly	Arg
				155					160					165
Glu	Glu	Ser	Pro	Leu	Leu	Ile	Gly	Gln	Gln	Ser	Thr	Val	Ser	Asp
				170					175					180
Val	Pro	Arg	Asp	Leu	Glu	Val	Val	Ala	Ala	Thr	Pro	Thr	Ser	Leu
				185	٠				190					195
Leu	Ile	Ser	Trp	Asp	Ala	Pro	Ala	Val	Thr	Val	Arg	Tyr	Tyr	Arg
				200					205					210
Ile	Thr	Tyr	Gly	Glu	Thr	Gly	Gly	Asn	Ser	Pro	Val	Gln	Glu	Phe
				215					220					225
Thr	Val	Pro	Gly		Lys	Ser	Thr	Ala		Ile	Ser	Gly	Leu	Lys
				230					235					240
Pro	Gly	Val	Asp		Thr	Ile	Thr	Val		Ala	Val	Thr	Gly	
		_		245					250					255
Gly	Asp	Ser	Pro		Ser	Ser	Lys	Pro		Ser	Lle	Asn	Tyr	
T)	0.1			260	D	0			265				ė.	270
Ihr	Glu	He	Asp	Lys	P r.o	Ser	Met	Ala	He	Pro	Ala	Pro	Thr	Asp

				275					280					.285
Leu	Lys	Phe	Thr	Gln	Val	Thr	Pro	Thr	Ser	Leu	Ser	Ala	Gln	Trp
				290				•	295					300
Thr	Pro	Pro	Asn	Val	Gln	Leu	Thr	Gly	Tyr	Arg	Val	Arg	Val	Thr
				30,5					310					315
Pro	Lys	Glu	Lys	Thr	Gly	Pro	Met	Lys	Glu	Ile	Asn	Leu	Ala	Pro
				320					325				•	330
Asp	Ser	Ser	Ser	Val	Val	Val	Ser	Gly	Leu	Met	Val	Ala	Thr	Lys
				335					340					345
Tyr	Glu	Val	Ser	Val	Tyr	Ala	Leu	Lys	Asp	Thr	Leu	Thr	Ser	Arg
				350					355					360
Pro	Ala	Gln	Gly	Val	Val	Thr	Thr	Leu	Glu	Asn	Val	Ser	Pro	Pro
•				365					370					375
Arg	Arg	Ala	Arg	.Va l	Thr	Asp	Ala	Thr	Glu	Thr	Thr	Ile	Thr	Ile
				380					385					390
Ser	Trp	Arg	Thr	Lys	Thr	Glu	Thr	Ile	Thr	Gly	Phe	Gln	Val	Asp
				395					400					405
Ala	Val	Pro	Ala	Asn	Gly	Gln	Thr	Pro	Ile	Gln	Arg	Thr	Ile	Lys
				410	•				415					420
Pro	Asp	Val	Arg	Ser	Tyr	Thr	Ile	Thr	Gly	Leu	Gln	Pro	Gly	Thr
			•	425					430					435
Asp	Tyr	Lys	Ile	Tyr	Leu	Tyr	Thr	Leu	Asn	Asp	Asn	Ala	Arg	Ser
				440					445					450
Ser	Pro	Val	Val		Asp	Ala	Ser	Thr	Ala	Ile	Asp	Ala	Pro	Ser
				455					460					465
Asn	Leu	Arg	Phe	Leu	Ala	Thr	Thr	Pro	Asn	Ser	Leu	Leu	Val	Ser

470 475 480 Trp Gln Pro Pro Arg Ala Arg Ile Thr Gly Tyr Ile Ile Lys Tyr 485 490 495 Glu Lys Pro Gly Ser Pro Pro Arg Glu Val Val Pro Arg Pro Arg 500 505 -510 Pro Gly Val Thr Glu Ala Thr Ile Thr Gly Leu Glu Pro Gly Thr 520 515 525 Glu Tyr Thr Ile Tyr Val Ile Ala Leu Lys Asn Asn Gln Lys Ser 530 535 540 Glu Pro Leu Ile Gly Arg Lys Lys Thr Asp Glu Leu Pro Gln Leu 545 550 555 Val Thr Leu Pro His Pro Asn Leu His Gly Pro Glu Ile Leu Asp 560 565 570 Val Pro Ser Thr

<21.0> 13

<211> 302

<212> PRT

<213> Artificial Sequence

<220>

<223> fibronectin fragment named C-CS1

<400> 13

Pro Thr Asp Leu Arg Phe Thr Asn Ile Gly Pro Asp Thr Met Arg

1 ·				5					10					15
Val	Thr	Trp	Ala	Pro	Pro	Pro	Ser	Ile	Asp	Leu	Thr	Asn	Phe	Leu
				20	·				25					30
Val	Arg	Tyr	Ser	Pro	Val	Lys	Asn	Glu	Glu	Asp	Val	Ala	Glu	Leu
				35					40			•		45
Ser	Ile	Ser	Pro	Ser	Asp	Asn	Ala	Val	Val	Leu	Thr	Asn	Leu	Leu
				50					55					60
Pro	Gly	Thr	Glu	Tyr	Val	Val	Ser	Val	Ser	Ser	Val	Tyr	Glu	Gln
				65					70					. 75
His	Glu	Ser	Thr	Pro	Leu	Arg	Gly	Arg	Gln	Lys	Thr	Gly	Leu	Asp
				80					85					90
Ser	Pro	Thr	Gly	Ile	Asp	Phe	Ser	Asp	Ile	Thr	Ala	Asn	Ser	Phe
				95					100					105
Thr	Val	His	Trp	Ile	Ala	Pro	Arg	Ala	Thr	Ile	Thr	Gly	Tyr	Arg
				110					115					120
Ile	Arg	His	His	Pro	Glu	His	Phe	Ser	Gly	Arg	Pro	Arg	Glu	Asp
				125					130					135
Arg	Val	Pro	His	Ser	Arg	Asn	Ser	Ile	Thr	Leu	Thr	Asn	Leu	Thr
				140					145					150
Pro	Gly	Thr	Glu		Val	Val	Ser	Ile		Ala	Leu	Asn	Gly	•
	.	~	_	155	_		.	.	160					165
Glu	Glu	Ser	Pro		Leu	lle	Gly	GIn		Ser	Thr	Val	Ser	
77 - 1	D.	A	A	170	01.	W. I	YZ . 1	47.	175	m1	D.	m1	0	180
Val	Pro	Arg	Asp		Glu	vai	vai	Ala		Thr	Pro	Thr	Ser	
•	7.1	0	Τ.	185	A 1	D.	4.7	V. 1	190	37. 1		m		195
Leu	11e	ser	ırp	ASP	Ala	rro	Ala	y a i	ınr	vai	Arg	IYI	IVI	Arg

200 205 210 Ile Thr Tyr Gly Glu Thr Gly Gly Asn Ser Pro Val Gln Glu Phe 220 215 225 Thr Val Pro Gly Ser Lys Ser Thr Ala Thr Ile Ser Gly Leu Lys 230 235 240 Pro Gly Val Asp Tyr Thr Ile Thr Val Tyr Ala Val Thr Gly Arg 245 250 255 Gly Asp Ser Pro Ala Ser Ser Lys Pro Ile Ser Ile Asn Tyr Arg 260 265 270 Thr Glu Ile Asp Lys Pro Ser Asp Glu Leu Pro Gln Leu Val Thr 275 280 285 Leu Pro His Pro Asn Leu His Gly Pro Glu Ile Leu Asp Val Pro 290 295 .300

<210> 14

Ser Thr

<211> 367

<212> PRT

<213> Artificial Sequence

<220>

<223> fibronectin fragment named CHV-89

<400> 14

Pro Thr Asp Leu Arg Phe Thr Asn Ile Gly Pro Asp Thr Met Arg

I				5					10					15
Val	Thr	Trp	Ala	Pro	Pro	Pro	Ser	Ile	Asp	Leu	Thr	Asn	Phe	Leu
				20					25					30
Val	Arg	Tyr	Ser	Pro	Val	Lys	Asn	Glu	Glu	Asp	Val	Ala	Glu	Leu
				35					40					45
Ser	Ile	Ser	Pro	Ser	Asp	Asn	Ala	Val	Val	Leu	Thr	Asn	Leu	·Leu
•				50					55					60
Pro	Gly	Thr	Glu	Tyr	Val	Val	Ser	Val	Ser	Ser	Val	Tyr	Glu	Gln
				65					70					75
His	Glu	Ser	Thr	Pro	Leu	Arg	Gly	Arg	Gln	Lys	Thr	Gly	Leu	Asp
				80					85					90
Ser	Pro	Thr	Gly	Ile	Asp	Phe	Ser	Asp	Ile	Thr	Ala	Asn	Ser	Phe
				95					100					105
Thr	Val	His	Trp	Ile	Ala	Pro	Arg	Ala	Thr	Ile	Thr	Gly	Tyr	Arg
				110					115					120
Ile	Arg	His	His	Pro	Glu	His	Phe	Ser	Gly	Arg	Pro	Arg	Glu	Asp
				125					130					135
Árg	Val	Pro	His	Ser	Arg	Asn	Ser	Ile	Thr	Leu	Thr	Asn	Leu	Thr
				140		•			145					150
Pro	Gly	Thr	Glu		Val	Val	Ser	Ile	Val	Ala	Leu	Asn	Gly	Arg
٠				155					160					165
Glu	Glu	Ser	Pro		Leu	Ile	Gly	Gln		Ser	Thr	Val	Ser	Asp
				170					175					180
Val	Pro	Arg	Asp		Gľu	Val	Val	Ala		Thr	Pro	Thr	Ser	Leu
_			_	185					190					195
Leu	Ile	Ser	Trp	Asp	Ala	Pro	Ala	Val	Thr	Val	Arg	Tyr	Tyr	Arg

				200					205					210
Ile	Thr	Tyr	Gly	Glu	Thr	Gly	Gly	Asn	Ser	Pro	Val	Gln	Glu	Phe
				215					220					225
Thr	Val	Pro	Gly	Ser	Lys	Ser	Thr	Ala	Thr	Ile	Ser	Gly	Leu	Lys
				230					235					240
Pro	Gly	Val	Asp	Tyr	Thr	Ile	Thr	Val	Tyr	Ala	Val	Thr	Gly	Arg
				245					250					255
Gly	Asp	Ser	Pro	Ala	Ser	Ser	Lys	Pro	Ile	Ser	Ile	Asn	Tyr	Arg
				260				•	265					270
Thr	Glu	Ile	Asp	Lys	Pro	Ser	Met	Asn	Val	Ser	Pro	Pro	Arg	Arg
				275					280					285
Ala	Arg	Val	Thr	Asp	Ala	Thr	Glu	Thr	Thr	Ile	Thr	Ile	Ser	Tr
				290					295					300
Arg	Thr	Lys	Thr	Glu	Thr	Ile	Thr	Gly	Phe	Gln	Val	Asp	Ala	Val
				305					310					315
Pro	Ala	Asn	Gly	Gln	Thr	Pro	Ile	Gln	Arg	Thr	Ile	Lys	Pro	Asp
				320					325					330
Val	Arg	Ser	Туг	Thr	Ile	Thr	Gly	Leu	Gln	Pro	Gly	Thr	Asp	Туг
				335					340					345
Lys	Ile	Tyr	Leu	Tyr	Thr	Leu	Asn	Asp	Asn	Ala	Arg	Ser	Ser	Pro
				350					355					360
Val	Val	Ile	Asp	Ala	Ser	Thr								
				365										

<211> 368 <212> PRT

<213> Artificial Sequence

<220>

<223> fibronectin fragment named CHV-90

<400> 15

Pro Thr Asp Leu Arg Phe Thr Asn Ile Gly Pro Asp Thr Met Arg Val Thr Trp Ala Pro Pro Pro Ser Ile Asp Leu Thr Asn Phe Leu Val Arg Tyr Ser Pro Val Lys Asn Glu Glu Asp Val Ala Glu Leu Ser Ile Ser Pro Ser Asp Asn Ala Val Val Leu Thr Asn Leu Leu Pro Gly Thr Glu Tyr Val Val Ser Val Ser Ser Val Tyr Glu Gln His Glu Ser Thr Pro Leu Arg Gly Arg Gln Lys Thr Gly Leu Asp Ser Pro Thr Gly Ile Asp Phe Ser Asp Ile Thr Ala Asn Ser Phe Thr Val His Trp Ile Ala Pro Arg Ala Thr Ile Thr Gly Tyr Arg Ile Arg His His Pro Glu His Phe Ser Gly Arg Pro Arg Glu Asp

Arg	Val	Pro	His	Ser	Arg	Asn	Ser	Ile	Thr	Leu	Thr	Asn	Leu	Thr
				140					145					150
Pro	Gly	Thr	Glu	Tyr	V.a l	Val	Ser	Ile	Val	Ala	Leu	Asn	Gly	Arg
				155					160					165
Glu	Glu	Ser	Pro	Leu	Leu	Ile	Gly	Gln	Gln	Ser	Thr	Val	Ser	Asp
				170					175					180
Val	Pro	Arg	Asp	Leu	Glu	Val	Val	Ala	Ala	Thr	Pro	Thr	Ser	Leu
				185					190					195
Leu	Ile	Ser	Trp	Asp	Ala	Pro	Ala	Val	Thr	Val	Arg	Tyr	Tyr	Arg
				200			•		205					210
Ile	Thr	Tyr	Gly	Glu	Thr	Gly	Gly	Asn	Ser	Pro	Val	Gln	Glu	Phe
				215					220					225
Thr	Val	Pro	Gly	Ser	Lys	Ser	Thr	Ala	Thr	Ile	Ser	Gly	Leu	Lys
				230					235					240
Pro	Gly	Val	Asp	Tyr	Thr	Ile	Thr	Val	Tyr	Ala	Val	Thr	Gly	Arg
	•			245					250					255
Gly	Asp	Ser	Pro	Ala	Ser	Ser	Lys	Pro	Ile	Ser	Ile	Asn	Tyr	Arg
				260					265					.270
Thr	Glu	Ile	Asp		Pro	Ser	Met	Ala		Asp	Ala	Pro	Ser	
				275					280					285
Leu	Arg	Phe	Leu		Thr	Thr	Pro	Asn		Leu	Leu	Val	Ser	
	_			290					295					300
Gln	Pro	Pro	Arg		Arg	He	Thr	Gly		He	Ile	Lys	Tyr	
	D	0.1	0	305	n .	4	<i>a</i> ,	77. 1	310					315
Lys	Pro	Gly	Ser		Pro	Arg	Glu	val		Pro	Arg	Pro	Arg	
				320					325					330

Gly Val Thr Glu Ala Thr Ile Thr Gly Leu Glu Pro Gly Thr Glu

335
340
345

Tyr Thr Ile Tyr Val Ile Ala Leu Lys Asn Asn Gln Lys Ser Glu
350
355
360

Pro Leu Ile Gly Arg Lys Lys Thr
365

<210> 16

<211> 370

<212> PRT

<213> Artificial Sequence

<220>

<223> fibronectin fragment named CHV-92

<400> 16

Pro Thr Asp Leu Arg Phe Thr Asn Ile Gly Pro Asp Thr Met Arg 5 1 10 15 Val Thr Trp Ala Pro Pro Pro Ser Ile Asp Leu Thr Asn Phe Leu 20 25 30 Val Arg Tyr Ser Pro Val Lys Asn Glu Glu Asp Val Ala Glu Leu 35 45 40 Ser Ile Ser Pro Ser Asp Asn Ala Val Val Leu Thr Asn Leu Leu 50 55 60

Pro Gly Thr Glu Tyr Val Val Ser Val Ser Ser Val Tyr Glu Gln

				65					70					75
His	Glu	Ser	Thr	Pro	Leu	Arg	Gly	Arg	Gln	Lys	Thr	Gly	Leu	Asp
				80					85					90
Ser	Pro	Thr	Gly	Ile	Asp	Phe	Ser	Asp	Ile	Thr	Ala	Asn	Ser	Phe
				95					100					105
Thr	Val	His	Trp	Ile	Ala	Pro	Arg	Ala	Thr	Ile	Thr	Gly	Tyr	Arg
				110					115					120
Ile	Arg	His	His	Pro	Glu	His	Phe	Ser	Gly	Arg	Pro	Arg	Glu	Asp
				125					130.				•	135
Arg	Val	Pro	His	Ser	Arg	Asn	Ser	Ile	Thr	Leu	Thr	Asn	Leu	Thr
				140					145					150
Pro	Gly	Thr	Glu	Tyr	Val	Val	Ser	Ile	Val	Ala	Leu	Asn	Gly	Arg
				155				•	160					165
Glu	Glu	Ser	Pro	Leu	Leu	Ile	Gly	Gln	Gln	Ser	Thr	Val	Ser	Asp
·				170					175					-180
Val	Pro	Arg	Asp	Leu	Glu	Val	Val	Ala	Ala	Thr	Pro	Thr	Ser	Leu
				185					190					195
Leu	Ile	Ser	Trp	Asp	Ala	Pro	Ala	Val	Thr	Val	Arg	Tyr	Tyr	Arg
				. 200					205	•				210
Ile	Thr	Tyr	Gly	Glu	Thr	Gly	Gly	Asn	Ser	Pro	Val	Gln	Glu	Phe
				215					220		٠			225
Thr	Val	Pro	Gly	Ser	Lys	Ser	Thr	Ala	Thr	Ile	Ser	Gly	Leu	Lys
				230					235					240
Pro	Gly	Val	Asp		Thr	Ile	Thr	Val		Ala	Val	Thr	Gly	Arg
				245					250					255
Gly	Asp	Ser	Pro	Ala	Ser	Ser	Lys	Pro	Ile	Ser	Ile	Asn	Tyr	Arg

Thr Glu Ile Asp Lys Pro Ser Met Ala Ile Pro Ala Pro Thr Asp Leu Lys Phe Thr Gln Val Thr Pro Thr Ser Leu Ser Ala Gln Trp Thr Pro Pro Asn Val Gln Leu Thr Gly Tyr Arg Val Arg Val Thr Pro Lys Glu Lys Thr Gly Pro Met Lys Glu Ile Asn Leu Ala Pro Asp Ser Ser Val Val Val Ser Gly Leu Met Val Ala Thr Lys Tyr Glu Val Ser Val Tyr Ala Leu Lys Asp Thr Leu Thr Ser Arg Pro Ala Gln Gly Val Val Thr Thr Leu Glu

<210> 17

<211> 457

<212> PRT

<213> Artificial Sequence

<220>

<223> fibronectin fragment named CHV-179

<400> 17

Pro	Thr	Asp	Leu	Arg	Phe	Thr	Asn	He	Gly	Pro	Asp	Thr	Me t	Arg
1		•		5					10					15
Val	Thr	Trp	Ala	Pro	Pro	Pro	Ser	Ile	Asp	Leu	Thr	Asn	Phe	Leu
				20					25					30
Val	Arg	Tyr	Ser	Pro	Val	Lys	Asn	Glu	Glu	Asp	Val	Ala	Glu	Leu
				35					40					45
Ser	Ile	Ser	Pro	Ser	As _p	Asn	Ala	Val	Val	Leu	Thr	Asn	Leu	Leu
				50			•		55					60
Pro	Gly	Thr	Glu	Tyr	Val	Val	Ser	Val	Ser	Ser	Val	Tyr	Glu	Gln
				65					70					75
His	Glu	Ser	Thr	Pro	Leu	Arg	Gly	Arg	Gln	Lys	Thr	Gly	Leu	Asp
				80					85					90
Ser	Pro	Thr	Gly	Ile	Asp	Phe	Ser	Asp	Ile	Thr	Ala	Asn	Ser	Phe
				95					100					105
Thr	Val	His	Trp	Ile	Ala	Pro	Arg	Ala	Thr	Ile	Thr	Gly	Tyr	Arg
				110					115					120
Ile	Arg	His	His	Pro	Glu	His	Phe	Ser	Gly	Arg	Pro	Arg	Glu	Asp
				125					130					135
Arg	Val	Pro	His	Ser	Arg	Asn	Ser	Ile	Thr	Leu	Thr	Asn	Leu	Thr
				140					145					150
Pro	Gly	Thr	Glu		Val	Val	Ser	Ile		Ala	Leu	Asn	Gly	Arg
				155					160					165
Glu	Glu	Ser	Pro		Leu	He	Gly	Gln		Ser	Thr	Val	Ser	
	_			170				. :	175		_			180
Val	Pro	Arg	Asp		Glu	Val	Val	Ala		Thr	Pro	Thr	Ser	
				185			•		190					195

Leu	Ile	Ser	Trp	Asp	Ala	Pro	Ala	Val	Thr	Val	Arg	Tyr	Tyr	Arg
				200					205					210
Ile	Thr	Tyr	Gly	Glu	Thr	Gly	Gly	Asn	Ser	Pro	Val	Gln	Glu	Phe
				215					220					225
Thr.	Val	Pro	Gly	Ser	Lys	Ser	Thr	Ala	Thr	Ile	Ser	Gly	Leu	Lys
				230					235					240
Pro	Gly	Val	Asp	Tyr	Thr	Ile	Thr	Val	Tyr	Ala	Val	Thr	Gly	Arg
				245					250					255
Gly	Asp	Sèr	Pro	Ala	Ser	Ser	Lys	Pro	Ile	Ser	Ile	Asn	Tyr	Arg
				260					265					270
Thr	Glu	Ile	Asp	Lys	Pro	Ser	Met	Asn	Val	Ser	Pro	Pro	Arg	Arg
				275					280					285
Ala	Arg	Val	Thr	Asp	Ala	Thr	Glu	Thr	Thr	Ile	Thr	Ile	Ser	Trp
				290					295					300
Arg	Thr	Lys	Thr	Glu	Thr	Ile	Thr	Gly	Phe	Gln	Val	Asp	Ala	Val
				305					310					·315
Pro	Ala	Asn	Gly	Gln	Thr	Pro	Ile	Gln	Arg	Thr	Ile	Lys	Pro	Asp
				320	•				325					330
Val	Arg	Ser	Tyr	Thr	Ile	Thr	Gly	Leu	Gln	Pro	Gly	Thr	Asp	Tyr
				335					340					345
Lys	Ile	Tyr	Leu	Tyr	Thr	Leu	Asn	Asp	Asn	Ala	Arg	Ser	Ser	Pro
				350					355					360
Val	Val	Ile	Asp	Ala	Ser	Thr	Ala	Ile	Asp	Ala	Pro	Ser	Asn	Leu
				365					370				•	375
Arg	Phe	Leu	Ala	Thr	Thr	Pro	Asn	Ser	Leu	Leu	Val	Ser	Trp	Gln
				380					385					390

Pro Pro Arg Ala Arg Ile Thr Gly Tyr Ile Ile Lys Tyr Glu Lys 400 405 395 Pro Gly Ser Pro Pro Arg Glu Val Val Pro Arg Pro Arg Pro Gly 415 4.10 420 Val Thr Glu Ala Thr Ile Thr Gly Leu Glu Pro Gly Thr Glu Tyr 425 430 435 Thr Ile Tyr Val Ile Ala Leu Lys Asn Asn Gln Lys Ser Glu Pro 440 445 450 Leu Ile Gly Arg Lys Lys Thr

<210> 18

<211> 459

<212> PRT

<213> Artificial Sequence

<220>

<223> fibronectin fragment named CHV-181

455

<400> 18

Pro Thr Asp Leu Arg Phe Thr Asn Ile Gly Pro Asp Thr Met Arg

1 5 10 15

Val Thr Trp Ala Pro Pro Pro Ser Ile Asp Leu Thr Asn Phe Leu
20 25 30

Val Arg Tyr Ser Pro Val Lys Asn Glu Glu Asp Val Ala Glu Leu

				35					40					45
Ser	Ile	Ser	Pro	Ser	Asp	Asn	Ala	Val	Val	Leu	Thr	Asn	Leu	Leu
				50					55					60
Pro	Gly	Thr	Glu	Tyr	Val	Val	Ser	Val	Ser	Ser	Val	Tyr	Glu	Gln
				65					70		·			75
His	Glu	Ser	Thr	Pro	Leu	Arg	Gly	Arg	Gln	Lys	Thr	Gly	Leu	Asp
				80					85					90
Ser	Pro	Thr	Gly	Ile	Asp	Phe	Ser	Asp	Ile	Thr	Ala	Asn	Ser	Phe
				95					100					105
Thr	Val	His	Trp	Ile	Ala	Pro	Arg	Ala	Thr	Ile	Thr	Gly	Tyr	Arg
				110					115					120
Ile	Arg	His	His	Pro	Glu	His	Phe	Ser	Gly	Arg	Pro	Arg	Glu	Asp
				125					130					135
Arg	Val	Pro	His	Ser	Arg	Asn	Ser	Ile	Thr	Leu	Thr	Asn	Leu	Thr
				140					145					150
Pro	Gly	Thr	Glu	Tyr	Val	Val	Ser	Ile	Val	Ala	Leu	Asn	Gly	Arg
				155					160					165
Glu	Glu	Ser	Pro	Leu	Leu	Ile	Gly	Gln	Gln	Ser	Thr	Val	Ser	Asp
				170	٠.				175					180
Val	Pro	Arg	Asp		Glu	Val	Val	Ala	•	Thr	Pro	Thr	Ser	
				185					190					195
Leu	He	Ser	Trp		Ala	Pro	Ala	Val		Val	Arg	Tyr	Tyr	Arg
		_		200					205					210
ΙΙę	Thr	Tyr	Gly		Thr	Gly	Gly	Asn		Pro	Val	Gln	Glu	
ጥዜ።	W = 1	D c	C1	215	T	0	.	41.	220		0		_	225
1 11 1	vai	P T O	Glv	\Pr	2.77	\ P r	ınr	412	Inr	110	\ O r	1 1 1 77	1 011	1 37.0

				230	•				235					240
Pro	Gly	Val	Asp	Tyr	Thr	Ile	Thr	Val	Tyr	Ala	Val	Thr	Gly	Arg
				245					250					255
Gly	Asp	Ser	Pro	Ala	Ser	Ser	Lys	Pro	Ile	Ser	Ile	Asn	Tyr	Arg
				260					265					270
Thr	Glu	Ile	Asp.	Ļys	Pro	Ser	Met	Ala	Ile	Pro	Ala	Pro	Thr	Asp
				275				٠.	280					285
Leu	Lys	Phe	Thr	Gln	Val	Thr	Pro	Thr	Ser	Leu	Ser	Ala	Gln	Trp
				290					295					300
Thr	Pro	Pro	Asn	Val	Gln	Leu	Thr	Gly	Tyr	Arg	Val	Arg	Val	Thr
				305					310					315
Pro	Lys	Glu	Lys	Thr	G1.y	Pro	Met	Lys	Glu	Ile	Asn	Leu	Ala	Pro
				320					325					330
Asp	Ser	Ser	Ser	Val	Val	Val	Ser	Gly	Leu	Me t	Val	Ala	Thr	Lys
				335					340					345
Tyr	Glu	Val	Ser	Val	Tyr	Ala	Leu	Lys	Asp	Thr	Leu	Thr	Ser	Arg
				350					355					360
Pro	Ala	Gln	Gly	Val	Val	Thr	Thr	Leu	Glu	Asn	Val	Ser	Pro	Pro
				365					370					375
Arg	Arg	Ala	Arg		Thr	Asp	Ala	Thr		Thr	Thr	Ile	Thr	
				380					385					390
Ser	Trp	Arg	Thr		Thr	Glu	Thr	Ile		Gly	Phe	Gln	Val	
		_		395				_	400					405
Ala	Val	Pro	Ala			Gln	Thr	Pro		Gln	Arg	Thr	He	
_		** *		410				m.	415	_	۵.	_	٠.	420
Pro	Asp	val	Arg	26 L	lyr	Thr	Пe	ınr	Ыy	Leu	Gln	Pro	Gly	Thr

Asp Tyr Lys Ile Tyr Leu Tyr Thr Leu Asn Asp Asn Ala Arg Ser
440 445 450

Ser Pro Val Val Ile Asp Ala Ser Thr
455

<210> 19

<211> 276

<212> PRT

<213> Artificial Sequence

<220>

<223> fibronectin fragment named H-275-Cys

<400> 19

Met Ala Ala Ser Ala Ile Pro Ala Pro Thr Asp Leu Lys Phe Thr 5 10 15 1 Gln Val Thr Pro Thr Ser Leu Ser Ala Gln Trp Thr Pro Pro Asn 20 25 30 Val Gln Leu Thr Gly Tyr Arg Val Arg Val Thr Pro Lys Glu Lys 35 40 45 Thr Gly Pro Met Lys Glu Ile Asn Leu Ala Pro Asp Ser Ser Ser 50 55 60 Val Val Val Ser Gly Leu Met Val Ala Thr Lys Tyr Glu Val Ser 65 70 75

Val	Tyr	Ala	Leu	Lys	Asp	Thr	Leu	Thr	Ser	Arg	Pro	Ala	Gln	Gly
				80					85					.90
Val	Val	Thr	Thr	Leu	Glu	Asn	Val	Ser	Pro	Pro	Arg	Arg	Ala	Arg
				95					100					105
Val	Thr	Asp	Ala	Thr	Glu	Thr	Thr	Ile	Thr	Ile	Ser	Trp	Arg	Thr
				110				•	115					120
Lys	Thr	Glu	Thr	Ile	Thr	Gly	Phe	Gln	Val	Asp	Ala	Val	Pro	Ala
				125					130					135
Asn	Gly	Gln	Thr	Pro	I l·e	Gln	Arg	Thr	Ile	Lys	Pro	Asp	Val	Arg
				140					145					150
Ser	Tyr	Thr	Ile	·Thr	Gly	Leu	Gln	Pro	Gly	Thr	Asp	Tyr	Lys	Ile
		•		155					160					165
Tyr	Leu	Tyr	Thr	Leu	Asn	Asp	Asn	Ala	Arg	Ser	Ser	Pro	Val	Val
				170					175					180
Ile	Asp	Ala	Ser	Thr	Ala	Ile	Asp	Ala	Pro	Ser	Asn	Leu	Arg	Phe
				185					190					195
Leu	Ala	Thr	Thr	Pro	Asn	Ser	Leu	Leu	Val	Ser	Trp	Gln	Pro	Pro
				200					205					210
Arg	Ala	Arg	Ile	Thr	Gly	Tyr	Ile	Ile			Glu	Lys	Pro	
				215	•				220					225
Ser	Pro	Pro	Arg			Val	Pro	Arg			Pro	Gly	Val	
				230		_		_	235			_		240
Glu	Ala	. Thr				Leu	Glu	Pro			Glu	Tyr	Thr	
_				245				.	250		٥.		-	255
Tyr	Val	Ile	Ala			Asn	Asn	Gln			Glu	Pro	Leu	
				260					265					270

Gly Arg Lys Lys Thr Cys
275

<210> 20

<211> 38

<212> DNA

<213> Artificial Sequence

<220>

<223> primer 12S

<400> 20

aaaccatggc agctagcgct attcctgcac caactgac

38

<210> 21

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<223> primer 14A

<400> 21

aaaggatccc taactagtct tittccttcc aatcag

<211> 40

<212> DNA

<213> Artificial Sequence

<220>

<223> primer Cys-A

<400> 22

aaaagcggcc gctagcgcaa gccatggtct gtttcctgtg

40

<210> 23

<211> 41

<212> DNA

<213> Artificial Sequence

<220>

<223> primer Cys-S

<400> 23

aaaagcggcc gcactagtgc atagggatcc ggctgagcaa c

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Designed peptide based on matrixprotein derived from influenza vir us

<400> 24

Gly Ile Leu Gly Phe Val Phe Thr Leu